

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

SHANGHAI PATENT & TRADEMARK LAW OFFICE

435 Guiping Road,
Shanghai 200233, China

PCT

REC'D 24 MAY 2005

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43 bis.1)

Date of mailing

(day/month/year)

19 MAY 2005 (19.05.2005)

Applicant's or agent's file reference

044596 PC

FOR FURTHER ACTION

see paragraph 2 below

International application No.

PCT/CN2004/001063

International filing date (day/month/year)

20.Sep. 2004 (20.09.04)

Priority date (day/month/year)

17.Jan. 2004 (17.01.04)

International Patent Classification (IPC) or both national classification and IPC

IPC⁷ B22D11/04

Applicant

BAOSHAN IRON & STEEL CO.,LTD. etc

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CN

The State Intellectual Property Office, the
P.R.China 6 Xitucheng Rd., Jimen Bridge,
Haidian District, Beijing, China 100088
Facsimile No. 86-10-62019451

Date of completion of this opinion

15.Apr.2005(15.04.05)

Authorized officer

YANG Kaining

Telephone No. 86-10-62085380

Form PCT/ISA/237(cover sheet)(April 2005)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CN2004/001063

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed
☐ filed together with the international application in electronic form
☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/CN2004/001063

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims 1-10	YES
	Claims	NO
Inventive step (IS)	Claims 1-10	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-10	YES
	Claims	NO

2. Citations and explanations

1. The following documents are mentioned in this written opinion:

D1: US6390177B1 (see the whole document)
D2: US5941298A (see the whole document)
D3: US5927378A (see the whole document)
D4: US5460220A (see the whole document)
D5: CN1121851A (see the whole document)
D6: CN1223917A (see the whole document)
D7: CN1220195A (see the whole document)

2. The subject matter of Claim 1 meets PCT Article 33(2) (novelty) since any of the documents D1 to D7 does not disclose all of the technical features of claim 1. Similarly, the dependent claims 2-10 also meet the criteria of PCT Article 33(2).

3. The subject matter of Claim 1 meets PCT Article 33(3) (inventive step)

The subject matter of Claim 1 is not disclosed by any of the documents D1 to D7 and their combinations, and the person skilled in the art does not get any teaching from the above documents, and can not obtain the solution of Claim 1 from the above documents and the general knowledges of this field. So the subject matter of Claim 1 involves an inventive step. Similarly, the dependent claims 2-10 also meet the criteria of PCT Article 33(3).

4. The subject matter of Claim 1-10 meets PCT Article 33(4) (industrial applicability) since the solution is considered as industrially applicable.

**WRITTEN OPINION OF THE
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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

- 1、 The fig 3 is not clear. So the fig 3 don't meet PCT article 7.
- 2、 There are many wrongly written or mispronounced characters in description, claims and abstract.